WHAT IS CLAIMED IS:

1. A method for encrypting a digital image comprising:

providing an unencrypted image;

partitioning the unencrypted image into at least one partition;

applying a P box to each partition;

applying a first S box to each partition;

applying a second S box to each partition;

generating an encrypted image based the P box, the first S box and the second S box.

2. The method according to Claim 1, wherein providing the unencrypted image comprises generating the unencrypted image at a camera.

3. The method according to Claim 1, wherein the unencrypted image comprises an image portion and a text potion and wherein partitioning the unencrypted image comprises:

determining a dimension of the unencrypted image;

partitioning the image portion into at least one image partition blocks based on a minimum partition block size and a maximum partition block size;

partitioning the text portion into at least one text partition blocks based on the minimum partition block size and the maximum partition block size;

indexing the image partition blocks; and

indexing the text partition blocks.

4. The method according to Claim 3, wherein the minimum partition block size is less than a length of a

cryptographic key and the maximum block size is less than the length of the cryptographic times the dimensionality of a product space associated with the second S box.

5. The method according to Claim 1, wherein applying the P box comprises:

applying a bit enumeration to each partition;

permuting a plurality of bits in each partition; and

rotating a plurality of nibbles in each partition.

6. The method according to Claim 1, wherein applying the first S box comprises:

applying a first non-linear feedback shift register to the partition;

selecting a nibble from the partition;

comparing the selected nibble against an entry in a predetermined table;

modifying the nibble based on the comparison;

applying a second nonlinear feedback shift register to the partition;

applying a rotation matrix to at least one of the nibbles in the partition; and

determining whether a predetermined number of twiddles has been applied to the partition.

7. The method according to Claim 6, wherein the first non-linear feedback shift register comprises a non-linear feedback shift register number three and the second non-linear feedback shift register comprises a non-linear feedback shift register number four.

8. The method according to Claim 1, wherein the second S box comprises:

determining a trajectory associated with each partition; and

determining a ring associated with each trajectory.

9. A method for digital image decrypting comprising:

providing an encrypted digital image;

reconstruct at least one partition based on the encrypted digital image;

reconstruct at least one trajectory associated with the encrypted digital image;

applying a reverse S2 box to the partitions based on the trajectories;

applying a reverse S1 box to the partitions;

applying a reverse P box to the partitions; and

generating an unencrypted digital image based on the first reverse S box, the second reverse S box and the reverse P box.

10. The method according to Claim 9, wherein reconstructing at least one trajectory comprises:

determining a set of at least one possible trajectory;

applying an S2 box to each possible trajectory in the set to generate an encrypted possible trajectory;

comparing the encrypted possible trajectory to the encrypted digital image; and

determining at least one actual trajectory when the comparison finds a match.

11. The method according to Claim 9, wherein applying the reverse S1 box comprises:

applying a rotation matrix to at least one of the nibbles in the partition

applying a second nonlinear feedback shift register to the partition

selecting a nibble from the partition;

comparing the selected nibble against an entry in a predetermined table;

modifying the nibble based on the comparison; and

applying a first non-linear feedback shift register to the partition.

12. The method according to Claim 11, wherein the first non-linear feedback shift register comprises a non-linear feedback shift register number three and the second non-linear feedback shift register comprises a non-linear feedback shift register number four.

13. The method according to Claim 9, wherein applying the reverse P box comprises:

rotating a plurality of nibbles in each partition;

permuting a plurality of bits in each partition; and

applying a bit enumeration to each partition.

14. The method according to Claim 9, wherein applying the reverse S2 box comprises:

determining a ring associated with each trajectory; and

determining a trajectory associated with each partition.

15. A system for encrypting a digital image comprising:

software stored in memory and operable to:

provide an unencrypted image;

partition the unencrypted image into at least one partition;

apply a P box to each partition;

apply a first S box to each partition;

apply a second S box to each partition; and

generate an encrypted image based the P box, the first S box and the second S box.

16. The system according to Claim 15, wherein the software is further operable to generate the unencrypted image at a camera.

17. The system according to Claim 15, wherein the unencrypted image comprises an image portion and a text potion and wherein the software is further operable to:

determine a dimension of the unencrypted image;

partition the image portion into at least one image partition blocks based on a minimum partition block size and a maximum partition block size;

partition the text portion into at least one text partition blocks based on the minimum partition block size and the maximum partition block size;

index the image partition blocks; and

index the text partition blocks.

18. The system according to Claim 17, wherein the minimum partition block size is less than a length of a cryptographic key and the maximum block size is less than

the length of the cryptographic times the dimensionality of a product space associated with the second S box.

19. The system according to Claim 15, wherein the software is further operable to:

apply a bit enumeration to each partition;

permute a plurality of bits in each partition; and

rotate a plurality of nibbles in each partition.

20. The system according to Claim 15, wherein the software is further operable to:

apply a first non-linear feedback shift register to the partition;

select a nibble from the partition;

compare the selected nibble against an entry in a predetermined table;

modify the nibble based on the comparison;

apply a second nonlinear feedback shift register to the partition;

apply a rotation matrix to at least one of the nibbles in the partition; and

determine whether a predetermined number of twiddles has been applied to the partition.

21. The system according to Claim 20, wherein the first non-linear feedback shift register comprises a non-linear feedback shift register number three and the second non-linear feedback shift register comprises a non-linear feedback shift register number four.

22. The system according to Claim 15, wherein the software is further operable to:

determining a trajectory associated with each partition; and

determining a ring associated with each trajectory.

23. A method for digital image decrypting comprising:

providing an encrypted digital image;

reconstruct at least one partition based on the encrypted digital image;

reconstruct at least one trajectory associated with the encrypted digital image;

applying a reverse S2 box to the partitions based on the trajectories;

applying a reverse S1 box to the partitions;

applying a reverse P box to the partitions; and

generating an unencrypted digital image based on the first reverse S box, the second reverse S box and the reverse P box.

24. The method according to Claim 23, wherein reconstructing at least one trajectory comprises:

determining a set of at least one possible trajectory;

applying an S2 box to each possible trajectory in the set to generate an encrypted possible trajectory;

comparing the encrypted possible trajectory to the encrypted digital image; and

determining at least one actual trajectory when the comparison finds a match.

25. The method according to Claim 23, wherein applying the reverse S1 box comprises:

applying a rotation matrix to at least one of the nibbles in the partition

applying a second nonlinear feedback shift register to the partition

selecting a nibble from the partition;

comparing the selected nibble against an entry in a predetermined table;

modifying the nibble based on the comparison; and

applying a first non-linear feedback shift register to the partition.

26. The method according to Claim 25, wherein the first non-linear feedback shift register comprises a non-linear feedback shift register number three and the second non-linear feedback shift register comprises a non-linear feedback shift register number four.

27. The method according to Claim 23, wherein applying the reverse P box comprises:

rotating a plurality of nibbles in each partition;

permuting a plurality of bits in each partition; and

applying a bit enumeration to each partition.

28. The method according to Claim 23, wherein applying the reverse S2 box comprises:

determining a ring associated with each trajectory; and

determining a trajectory associated with each partition.

29. A system for encrypting a digital image comprising:

means for providing an unencrypted image;

means for partitioning the unencrypted image into at least one partition;

means for applying a P box to each partition;

means for applying a first S box to each partition;

means for applying a second S box to each partition; and

means for generating an encrypted image based the P box, the first S box and the second S box.

30. A system for digital image decrypting comprising:

means for providing an encrypted digital image;

means for reconstruct at least one partition based on the encrypted digital image;

means for reconstruct at least one trajectory associated with the encrypted digital image;

means for applying a reverse S2 box to the partitions based on the trajectories;

means for applying a reverse S1 box to the partitions;

means for applying a reverse P box to the partitions; and

means for generating an unencrypted digital image based on the first reverse S box, the second reverse S box and the reverse P box.